

The 'post-condom era' or the urgent need to provide effective contraception for women living with HIV

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Introduction

To date, vaginal intercourse is the most common route for HIV transmission and accounts for more than 80% of new infections in women worldwide [1]. Nearly 10 years ago, in 2008, Swiss experts recommended that suppressive ART could provide effective and sufficient protection to allow unprotected sexual intercourse [2]. More than 8 years of clinical experience did not change this statement, but rather, confirmed it [3]. Today we know that the HIV transmission risk between sero-discordant couples, in which the infected partner is receiving effective antiretroviral therapy (ART), remains very low [4]. This has changed the landscape of HIV medicine, especially for HIV-infected women who wish to become pregnant with an HIV-negative partner in a natural way, not dependent on artificial insemination.

In addition, to better define the role of ART for HIV prevention, the US National Institutes for Health (NIH) supported the randomised clinical trial, HPTN 052, to evaluate the benefit of early ART initiation for prevention of HIV transmission in sero-discordant couples [5]. The results showed that earlier treatment initiation reduced HIV transmissions by 96%.

With this use of ART as a preventative tool, the exciting news for HIV sero-discordant couples is that HIV transmission to sexual partners is extremely low if HIV viral load is fully suppressed; the era of condom use with a regular partner after exclusion of other sexually transmitted infections seems to have passed [4–6]. However, what are the future challenges for this 'post-condom era'? Are we missing an important point?

The HPTN 052 results imply that HIV-positive women need to be less concerned about using barrier methods such as male or female condoms while living in a stable partnership and being on ART with an undetectable viral load. The same situation applies for a woman living with an HIV-positive male partner who remains adherent to his treatment and is virologically suppressed.

However, using ART as prevention for HIV transmission does not consider the very important issue of access to effective contraceptives for women who want to prevent a pregnancy. If male condoms become less important in terms of transmission they will be less likely to be used in stable partnerships. Birth control is an important part of women's well-being and autonomy during the reproductive phase of their lives [7]. Worldwide, male condoms remain the predominant contraceptive method despite the absence of clear restrictions on hormonal contraception and intrauterine devices for women living with HIV [8]. This relates to the inexpensive and easily accessible nature of male condoms as contraceptives as well as their protective effect against other sexually transmitted infections. When counselling on specific contraceptive methods for women with HIV, healthcare providers must discuss all available possibilities and in particular, inform women about the failure risk of hormonal methods due to drug–drug interaction with ART. Hormonal contraception (HC) includes combined hormones (progestin and oestrogen) delivered as a daily pill, vaginal ring and transdermal patch, or progestin

only as an oral pill, injectable, subcutaneous implants and within intrauterine devices. There are several concerns regarding drug–drug interactions between HC and ART and reduced efficacy [9]. HIV-infected women using combined HC and efavirenz-, nevirapine- or ritonavir-containing ART should be informed about the possibility of decreased contraceptive efficacy [10,11]. If condoms are omitted, which would have provided an additional contraceptive effect, the uncertainty about efficacy of hormonal products when in combination with ART becomes more important.

What problems may be caused by contraceptive failure?

Following a global online community survey of 94 countries, 56.7% of women living with HIV reported an unplanned pregnancy [12]. Unintended pregnancies (UP) carry a high risk and immense burden of morbidity and even mortality for women, especially if they have to undergo unsafe abortions in resource-poor areas or where abortion is illegal [13–16]. Worldwide, as many as 74 million UPs occur annually and 30% of these are due to either method- or user-related contraceptive failures [17]. In circumstances when condoms might not be used for onward transmission of HIV in stable partnerships, it remains essential to avoid any UPs and adverse outcomes with regards to maternal physical and psychological health. We should be aware to never forget this important issue when we talk about ART as prevention for HIV transmission.

Conclusion

The preventive effect of ART in terms of onward HIV transmission, as well as scaling up treatment as prevention worldwide, will inevitably lead to less condom use and expose young women to a higher risk for UP. We have now to evaluate the consequences of behaviour change with respect to condom use in a broader context, including other sexually transmitted infections and UP. Where do we go from here? The major challenge is the implementation of effective and sustained contraception use for women living with HIV or living with an HIV-positive partner that takes their type of ART and individual family planning into account.

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